AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated in the complete listing of claims listed below. This listing of claims will replace all prior versions, and listings, of claims in the application:

1-25. (canceled)

26. (Currently Amended) A method to implement a graphical user interface on a data processing system having an input device and a display device, the method comprising:

receiving ~~a first~~ an input which indicates a movement of [[an]] the input device ~~in a first degree of freedom of the input device~~ while a cursor of the graphical user interface is outside a first region on [[a]] the display device, the input comprising:

a first component which indicates a component of the movement in a first degree of freedom of the input device, and

a second component which indicates a component of the movement in a second degree of freedom of the input device; and

adjusting a first parameter under control of a first user interface element, which is for receiving input from a user, of the graphical user interface according to the first component of the input, the first user interface element being located within the first region, wherein the adjusting the first parameter causes a parameter under control of another user interface element of the graphical user interface to be adjusted based on a value of the first parameter.

27. (Previously Presented) A method as in claim 26, wherein the first user interface element is controllable by a movement of the input device when the cursor of the graphical user interface is within the first region.

28. (Currently Amended) A method as in claim 26, further comprising:

~~receiving a second input which indicates a movement of the input device in a second degree of freedom of the input device; and~~

adjusting a second parameter under control of a second user interface element of the graphical user interface according to the second component of the input, the second user interface element being located within a second region, the second region being outside the first region.

29. (Previously Presented) A method as in claim 28, wherein the first user interface element is controllable by a movement of the input device when the cursor of the graphical user interface is within the first region; and, wherein the second user interface element is controllable by a movement of the input device when the cursor of the graphical user interface is within the second region.

30. (Previously Presented) A method as in claim 29, wherein the first user interface element comprises a slider and the second user interface element comprises a timeline.

31. (Currently Amended) A machine readable medium embodying machine readable instructions, said machine readable instructions causing a machine

having an input device and a display device to perform a method to implement a graphical user interface, the method comprising:

receiving ~~a first~~ an input which indicates a movement of [[an]] the input device ~~in a first degree of freedom of the input device~~ while a cursor of the graphical user interface is outside a first region on [[a]] the display device, the input comprising:

a first component which indicates a component of the movement in a first degree of freedom of the input device, and

a second component which indicates a component of the movement in a second degree of freedom of the input device; and

adjusting a first parameter under control of a first user interface element, which is for receiving input from a user, of the graphical user interface according to the first component of the input, the first user interface element being located within the first region, wherein the adjusting the first parameter causes a parameter under control of another user interface element of the graphical user interface to be adjusted based on a value of the first parameter.

32. (Previously Presented) A medium as in claim 31, wherein the first user interface element is controllable by a movement of the input device when the cursor of the graphical user interface is within the first region.

33. (Currently Amended) A medium as in claim 31, wherein the method further comprises:

~~receiving a second input which indicates a movement of the input device in a second degree of freedom of the input device; and~~

adjusting a second parameter under control of a second user interface element of the graphical user interface according to the second component of the input, the second user interface element being located within a second region, the second region being outside the first region.

34. (Previously Presented) A medium as in claim 33, wherein the first user interface element is controllable by a movement of the input device when the cursor of the graphical user interface is within the first region; and, wherein the second user interface element is controllable by a movement of the input device when the cursor of the graphical user interface is within the second region.

35. (Previously Presented) A medium as in claim 34, wherein the first user interface element comprises a slider and the second user interface element comprises a timeline.

36. (Currently Amended) A data processing system to implement a graphical user interface, the data processing having an input device and a display device, the data processing system comprising:

means for receiving ~~a first~~ an input which indicates a movement of [[an]] the input device ~~in a first degree of freedom of the input device~~ while a cursor of the graphical user interface is outside a first region on [[a]] the display device, the input comprising:

a first component which indicates a component of the movement in a first degree of freedom of the input device, and

a second component which indicates a component of the movement in a second degree of freedom of the input device; and

means for adjusting a first parameter under control of a first user interface element, which is for receiving input from a user, of the graphical user interface according to the first component of the input, the first user interface element being located within the first region, wherein the adjusting the first parameter causes a parameter under control of another user interface element of the graphical user interface to be adjusted based on a value of the first parameter.

37. (Previously Presented) A data processing system as in claim 36, wherein the first user interface element is controllable by a movement of the input device when the cursor of the graphical user interface is within the first region.

38. (Currently Amended) A data processing system as in claim 36, further comprising:

~~means for receiving a second input which indicates a movement of the input device in a second degree of freedom of the input device; and~~

means for adjusting a second parameter under control of a second user interface element of the graphical user interface according to the second component of the input, the second user interface element being located within a second region, the second region being outside the first region.

39. (Previously Presented) A data processing system as in claim 38, wherein the first user interface element is controllable by a movement of the input device

when the cursor of the graphical user interface is within the first region; and, wherein the second user interface element is controllable by a movement of the input device when the cursor of the graphical user interface is within the second region.

40. (Previously Presented) A data processing system as in claim 39, wherein the first user interface element comprises a slider and the second user interface element comprises a timeline.

41. (Previously Presented) A method for accessing a broad data field having fine resolution comprising:

selecting a scale to control a range for accessing data within the data field, the scale being displayed by a first control element of a graphical user interface on a display device;

moving the range to encompass different portions of the data field, a position of the range relative to the data field being displayed by a second control element of the graphical user interface on the display device; and

changing simultaneously the scale while moving the range over different portions of the data field.

42. (Previously Presented) The method of claim 41, wherein the scale is controlled by moving a cursor positioning device along a first axis.

43. (Previously Presented) The method of claim 42, wherein the position of the range is controlled by moving the cursor positioning device along a second axis.

44. (Previously Presented) The method of claim 42, wherein the position of the range is controlled by moving the cursor positioning device in an axis orthogonal to the first axis.

45. (Previously Presented) The method of claim 44, wherein moving the cursor positioning device in an upward motion increases the scale and moving the cursor positioning device in a downward motion decreases the scale.

46. (Previously Presented) The method of claim 45, wherein moving the cursor positioning device to the right causes the range to be shifted to the right and moving the cursor positioning device to the left causes the range to be shifted to the left.

47. (Previously Presented) The method of claim 46, wherein a particular piece of data can be accessed within the data field having five orders of magnitude.

48. (Previously Presented) The method of claim 47, wherein the range is displayed as a timeline.

49. (Previously Presented) The method of claim 48, wherein the cursor positioning device is also capable of controlling the position of a cursor of the graphical user interface on a display screen.

50. (Previously Presented) The method of claim 49, wherein the scale and the position of the range are capable of being simultaneously controlled by the cursor positioning device after positioning the cursor over an icon and depressing a button.

51. (Previously Presented) The method of claim 50, wherein the cursor positioning device is at least one of a mouse, a track ball, a touch tablet, joystick.

52. (Previously Presented) A method for accessing a particular piece of data within a broad data field having fine resolution comprising:

selectively varying a scale, thereby determining a range, the range spanning a portion of the data field, the scale being displayed by a first control element of a graphical user interface on a display device;

moving the range relative to the data field, thereby encompassing portions of the data field such that the particular piece of data lies within the range, a position of the range relative to the data field being displayed by a second control element of the graphical user interface on the display device;

locating a point close to the location of the particular piece of data within the data field using the second control element;

decreasing the scale, thereby increasing the range's resolution, while simultaneously moving the range relative to the data field to keep the point within the range; and

successively repeating said decreasing and said locating, until the particular piece of data is actually accessed.

53. (Previously Presented) The method of claim 52, wherein the scale is controlled by moving a mouse along an axis and the position of the range is controlled by moving the mouse along another axis.

54. (Previously Presented) The method of claim 53, wherein the mouse is also capable of controlling the position of a cursor of the graphical user interface on a display screen.

55. (Previously Presented) The method of claim 52, wherein the scale is controlled by moving a trackball along an axis and the position of the range is controlled by moving the trackball along another axis.

56. (Previously Presented) An apparatus for accessing a broad data field having fine resolution comprising:

a means for selecting a scale for controlling a range within the data field, the scale being displayed by a first control element of a graphical user interface on a displayed device;

a means for moving the range to encompass different portions of the data field, a position of the range relative to the data field being displayed by a second control element of the graphical user interface on the display device; and

a means for simultaneously selecting the scale while moving the range over different portions of the data field.

57. (Previously Presented) The apparatus of claim 56, further including a switching means for switching a mouse between controlling a cursor's position on a display screen and controlling the scale and the position of the range.

58. (Previously Presented) The apparatus of claim 57, wherein the scale is controlled by moving the mouse along an axis and the position of the range is controlled by moving the mouse along another axis.

59. (Previously Presented) The apparatus of claim 58, wherein the range is displayed as a timeline.

60. (Previously Presented) A method for accessing a data set containing a plurality of items comprising:

selecting a scale of access to the data set according to input from an input device with relation to a first axis of a first degree of freedom of the input device, the scale being displayed by a first control element of a graphical user interface on a display; and

selecting a position of access to the data set at the scale according to input from the input device with relation to a second axis of a second degree of freedom of the input device while the first degree of freedom of the input device controls said selecting the scale in the first graphical user interface element, the position being displayed by a second control element of the graphical user interface on the display device.

61. (Previously Presented) The method of claim 60, wherein the input device is at least one of a mouse, a track ball, a touch tablet, a joystick.

62. (Previously Presented) The method of claim 61, wherein the first and the second axes of the input device are capable of being remapped such that the input device controls positioning a cursor of the graphical user interface on a display screen.

63. (Previously Presented) A method for accessing a particular piece of data within a broad data field having fine resolution comprising:

selecting a scale wherein the particular piece of data lies within a range which encompasses a continuous portion of the data set, the scale displaying a magnification level of the data field on a display device, the scale being controlled by a first degree of freedom of an input device in a first control element of a graphical user interface;

decreasing the scale such that the magnification level is increased;

changing a span of the data field covered by the range, according to the scale selected;

moving the data field such that the particular piece of data falls within the range, said moving controlled by a second degree of freedom of the input device in a second control element of the graphical user interface while the first degree of freedom of the input device controls the first control element; and

successively repeating said decreasing the scale and said moving the data field, until the particular piece of data is actually accessed.

64. (Currently Amended) A method to implement a graphical user interface on a data processing system having an input device and a display device, the method comprising:

receiving [[a first]] an input ~~which indicates a first movement of an~~ from the input device, the [[first]] input comprising:

a first component which indicates a component of the ~~first movement~~ input according to a first degree of freedom of the input device, and

a second component which indicates a component of the ~~first movement~~ input according to a second degree of freedom of the input device; and

performing simultaneously the following:

adjusting continuously a first parameter displayed by a first user interface element of the graphical user interface on [[a]] the display device according to the first component, the first user interface element being located in a first region in the graphical user interface; and

adjusting continuously a second parameter displayed by a second user interface element of the graphical user interface on the display device according to the second component, the second user interface element being located in a second region in the graphical user interface.

65. (Previously Presented) A method as in claim 64, wherein the first user interface element is controllable by the input device when a cursor of the graphical user interface is in the first region; and, the second user interface element is controllable by the input device when the cursor of the graphical user interface is in the second region.

66. (Previously Presented) A method as in claim 65, wherein the first and second regions are not overlapping with each other.

67. (Previously Presented) A method as in claim 66, wherein the cursor is not displayed when the first parameter is adjusted according to the first component and the second parameter is adjusted according to the second component.

68. (Previously Presented) A method as in claim 64, wherein the first and second parameters are independent from each other.

69. (Previously Presented) A method as in claim 64, further comprising:

determining a dominant one of the first component and the second component;

wherein only one of the first and second parameters is adjusted according to the dominant one of the first component and the second component.

70. (Currently Amended) A machine readable medium embodying machine readable instructions, said machine readable instructions causing a machine having an input device and a display device to perform a method to implement a graphical user interface, the method comprising:

receiving [[a first]] an input ~~which indicates a first movement of an~~ from the input device, the [[first]] input comprising:

a first component which indicates a component of the ~~first movement~~ input according to a first degree of freedom of the input device, and

a second component which indicates a component of the ~~first movement~~ input according to a second degree of freedom of the input device; and

performing simultaneously the following:

adjusting continuously a first parameter displayed by a first user interface element of the graphical user interface on [[a]] the display device according to the first component, the first user interface element being located in a first region in the graphical user interface; and

adjusting continuously a second parameter displayed by a second user interface element of the graphical user interface on the display device according to the second component, the second user interface element being located in a second region in the graphical user interface.

71. (Previously Presented) A medium as in claim 70, wherein the first user interface element is controllable by the input device when a cursor of the graphical user interface is in the first region; and, the second user interface element is controllable by the input device when the cursor of the graphical user interface is in the second region.

72. (Previously Presented) A medium as in claim 71, wherein the first and second regions are not overlapping with each other.

73. (Previously Presented) A medium as in claim 72, wherein the cursor is not displayed when the first parameter is adjusted according to the first

component and the second parameter is adjusted according to the second component.

74. (Previously Presented) A medium as in claim 70, wherein the first and second parameters are independent from each other.

75. (Previously Presented) A medium as in claim 70, wherein the method further comprises:

determining a dominant one of the first component and the second component;

wherein only one of the first and second parameters is adjusted according to the dominant one of the first component and the second component.

76. (Currently Amended) A data processing system to implement a graphical user interface, the data processing system having an input device and a display device, the data processing system comprising:

means for receiving [[a first]] an input ~~which indicates a first movement of an~~ from the input device, the [[first]] input comprising:

a first component which indicates a component of the ~~first movement~~ input according to a first degree of freedom of the input device, and

a second component which indicates a component of the ~~first movement~~ input according to a second degree of freedom of the input device; and

means for performing simultaneously the following:

adjusting continuously a first parameter displayed by a first user interface element of the graphical user interface on [[a]] the display device according to the first component, the first user interface element being located in a first region in the graphical user interface; and

adjusting continuously a second parameter displayed by a second user interface element of the graphical user interface on the display device according to the second component, the second user interface element being located in a second region in the graphical user interface.

77. (Previously Presented) A data processing system as in claim 76, wherein the first user interface element is controllable by the input device when a cursor of the graphical user interface is in the first region; and, the second user interface element is controllable by the input device when the cursor of the graphical user interface is in the second region.

78. (Previously Presented) A data processing system as in claim 77, wherein the first and second regions are not overlapping with each other.

79. (Previously Presented) A data processing system as in claim 78, wherein the cursor is not displayed when the first parameter is adjusted according to the first component and the second parameter is adjusted according to the second component.

80. (Previously Presented) A data processing system as in claim 76, wherein the first and second parameters are independent from each other.

81. (Previously Presented) A data processing system as in claim 76, further comprising:

means for determining a dominant one of the first component and the second component;

wherein only one of the first and second parameters is adjusted according to the dominant one of the first component and the second component.